

What is claimed is:

- 1 1. A method of designing a video signal processing integrated circuit (IC) having an
2 envelope detector for detecting an envelope of a frequency modulated (FM) video signal,
3 wherein a level variation switching circuit for changing an envelope level of the FM video signal
4 according to an execution mode is incorporated into the video signal processing IC, and ON/OFF
5 switching control of the level variation switching circuit is executed in response to a control data
6 input from a microprocessor.

- 1 2. The method according to claim 1, wherein the level variation switching circuit reduces
2 variation in the envelope level of the FM video signal according to standard playback (SP) mode
3 information and super long playback (SLP) mode information, respectively, contained in the
4 control data input from the microprocessor.

- 1 3. The method according to claim 1, wherein the level variation switching circuit
2 operates in dependence on a playback mode of a video cassette recorder.

- 1 4. The method according to claim 1, wherein the level variation switching circuit has a
2 resistor at an output terminal of the envelope detector.

1 5. A video signal processing integrated circuit (IC) incorporating an envelope detecting
2 circuit for detecting an envelope level of an FM video signal, wherein the envelope detecting
3 circuit comprises:

4 a peak detector for receiving the FM video signal and for detecting a peak value of the
5 FM video signal; and

6 a level switch connected to an output of the peak detector for controlling the envelope
7 level of the FM video signal according to mode information applied from a microprocessor so as
8 to reduce a variation in the envelope level with a type of mode of operation of a video cassette
9 recorder (VCR).

1 6. The video signal processing IC according to claim 5, further comprising an amplifier
2 connected to an input terminal of the peak detector for amplifying the FM video signal with a
3 predetermined gain prior to provision to the peak detector.

1 7. The video signal processing IC according to claim 5, further comprising an amplifier
2 connected to an output terminal of the peak detector for amplifying the FM video signal with a
3 predetermined gain after processing in the peak detector.

1 8. The video signal processing IC according to claim 5, wherein the level switch includes
2 a resistance element having a first terminal connected to the output of the peak detector and

3 having a second terminal, and a switching control element connected to the second terminal of
4 the resistance element, the switching control element being controlled by the mode information
5 from the microprocessor.

1 9. The video signal processing IC according to claim 8, wherein the mode information
2 comprises SP/SLP mode information relating to operation of the VCR.

1 10. The video signal processing IC according to claim 5, wherein the mode information
2 comprises SP/SLP mode information relating to operation of the VCR.

1 11. A method of designing a video signal processing integrated circuit (IC) having an
2 envelope detector for detecting an envelope of a frequency modulated (FM) video signal, said
3 method comprising the steps of:
4

5 providing a level variation switching circuit in the video signal processing IC for
6 changing an envelope level of the FM video signal according to an execution mode; and

7 providing an ON/OFF switching control of the level variation switching circuit in
response to a control data input from a microprocessor.

1 12. The method according to claim 11, further comprising the step of providing the level
2 variation switching circuit with a capability of reducing variation in the envelope level of the FM

3 video signal according to standard playback (SP) mode information and super long playback
4 (SLP) mode information, respectively, contained in the control data input from the
5 microprocessor.

1 13. The method according to claim 11, wherein the level variation switching circuit
2 operates in dependence on a playback mode of a video cassette recorder.

1 14. The method according to claim 11, wherein the level variation switching circuit has a
2 resistor at an output terminal of the envelope detector.

1 15. A video signal processing circuit for detecting an envelope level of an FM video
2 signal input thereto, said circuit comprising:

3 peak detector means for receiving the FM video signal and for detecting a peak value of
4 the FM video signal; and

5 level switch means connected to said peak detector means for controlling the envelope
6 level of the FM video signal according to mode information applied thereto so as to reduce a
7 variation in the envelope level with a mode of operation of a video cassette recorder (VCR).

1 16. The video signal processing circuit according to claim 15, further comprising an
2 amplifier connected to an input terminal of said peak detector means for amplifying the FM

3 video signal with a predetermined gain prior to provision to said peak detector means.

1 17. The video signal processing circuit according to claim 15, further comprising an
2 amplifier connected to an output terminal of said peak detector means for amplifying the FM
3 video signal with a predetermined gain after processing in said peak detector means.

1 18. The video signal processing circuit according to claim 15, wherein said level switch
2 means includes a resistance element having a first terminal connected to said peak detector
3 means and having a second terminal, said level switch means further including a switching
4 control element connected to the second terminal of the resistance element, the switching control
5 element being controlled by the mode information applied to said level switch means.

1 19. The video signal processing circuit according to claim 18, wherein the mode
2 information comprises SP/SLP mode information relating to operation of the VCR.

1 20. The video signal processing circuit according to claim 15, wherein the mode
2 information comprises SP/SLP mode information relating to operation of the VCR.